# REJECTION OF DEFUSE PROJECT PROPOSAL

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| Proposal Title: | DEFUSE - Defusing the Threat of Bat-borne Coronaviruses (2018) |
| Proposal Identifier: | HR001118S0017-PREEMPT-FP-019 |

Amounts Requested by EcoHealth Alliance:

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| Phase I | $8,411,546 |
| Phase II | $5,797,699 |
| **Total:** | **$14,209,245** |

## RESULT

The DEFUSE proposed project by EHA was **rejected by DARPA**, although *"if funding became available"*, certain components of particular interest could have gone ahead, subject to a clear contractual Dual Use Research of Concern (DURC) risk mitigation plan that *'includes a responsible communications plan'*.

## REASONS FOR REJECTION

The Biological Technologies Office of DARPA reviewed the EcoHealth Alliance DEFUSE proposal and the Evaluation Reports and decided it was "**selectable**". In doing so, two out of three reviewers considered the aim of preempting "zoonotic spillover through reduction of viral shedding in the bat caves" as of interest to DARPA. These reviewers assessed the EHA and Collaborators team and concluded that:

- They have plenty of prior experience.
- They have access to Yunnan caves where bats are infected with SARSr viruses.
- They have carried out past surveillance work
- They have developed geo-based risk maps of zoonotic hotspots
- Their proposed experimental work is logical and can validate molecular and evolutionary models.
- Their proposed preemption approaches can rapidly be validated using bat and "batenized" mouse models.

However, the Biological Technologies Office did not recommend it be funded **at that time** because significant weaknesses were identified:

1. The proposal is considered to potentially involve GoF/DURC research because they propose to synthesize spike glycoproteins which bind to human cell receptors and insert them into SARSr-CoV backbones to assess whether they can cause SARS-like disease.
2. However the proposal does not mention or assess potential risks of Gain of Function (GoF) research.
3. Nor does the proposal mention or assess Dual Use Research of Concern (DURC) issues, and thus fails to present a DURC risk mitigation plan.
4. The proposal hardly addresses or discusses ethical, legal, and social issues (ELSI).
5. The proposal fails to discuss problems with the proposed vaccine delivery systems caused by the known issues of variability in vaccine dosage.
6. The proposal did not provide sufficient information about how EHA would use any data obtained and how they would model development or perform any necessary statistical analysis.
7. The proposal did not explain clearly how EHA will take advantage of their previous work, nor how that previous work could be extended.
8. The proposal failed to clearly assess how it would deploy and validate the “TA2 preemption methods” in the wild. This refers to carrying out experiments with effective immune boosting molecules and delivery techniques via FEA aerosolization mechanism at one test and. two control bat cave sites in Yunnan, China (PARC, EHA, WIV).
9. The proposal does not address concerns about these vaccines not being able to protect against the wide variety of coronaviruses in bat caves which are constantly evolving, due to insufficient epitope coverage.

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*DRASTIC independently assesses that the tone of the proposal (see for instance the ‘<u>our</u> cave complex’) and the deep suggested involvement of some of the WIV parties (Shi Zheng Li employed half-time for 3 years - paid via the grant - and invited to DARPA headquarters at Arlington), may not have helped either - especially in the absence of any DURC risk mitigation program.*

*It is clear that the proposed DEFUSE project led by Peter Daszak could have put local communities at risk by failing to consider the following issues:*

- Gain of Function
- Dual Use Research of Concern
- Vaccine epitope coverage
- Regulatory requirements
- ELSI (ethical, legal, and social issues)
- Data Usage

END